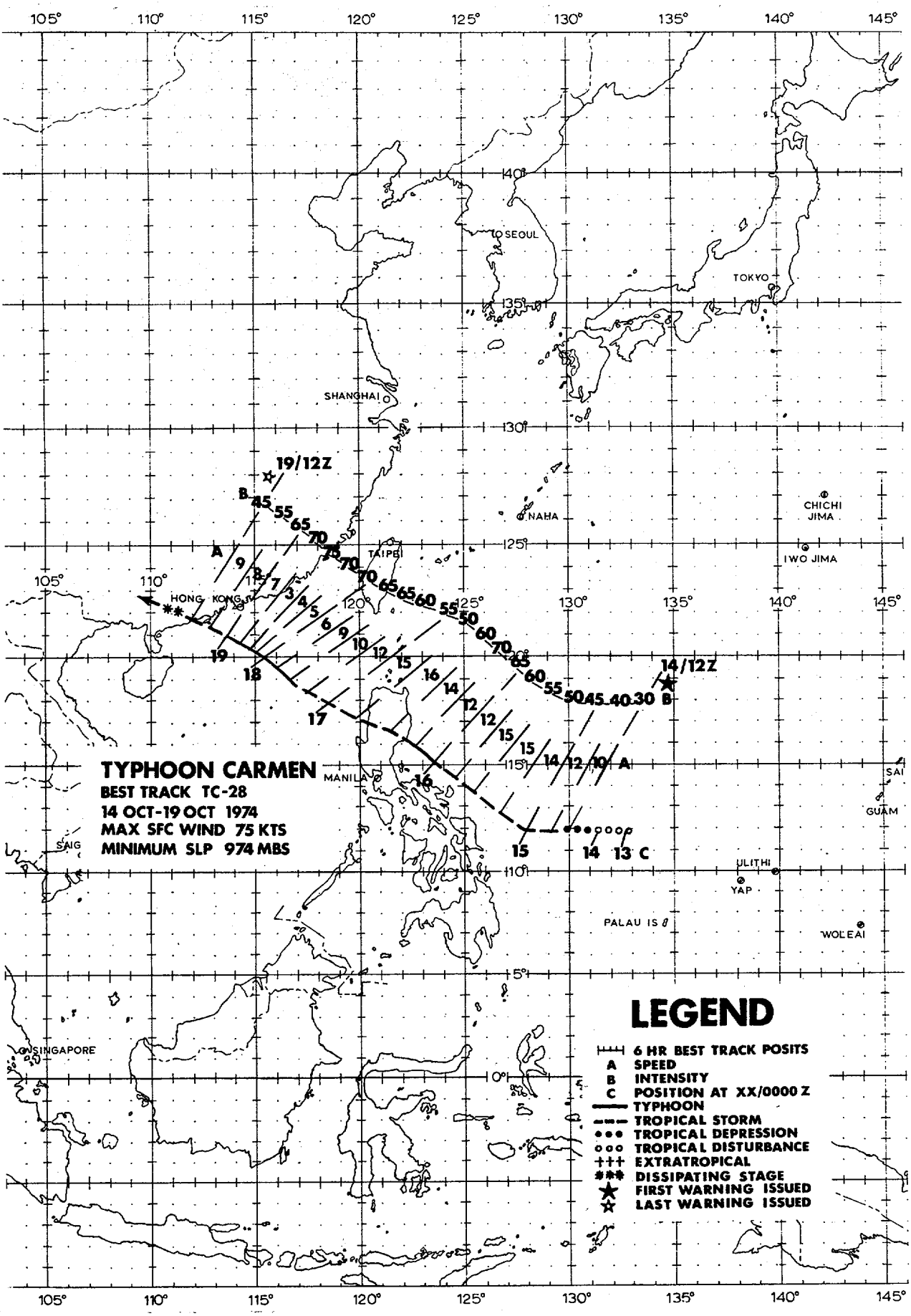
105° 110° 115° 120° 125° 130° 135° 140° 145°
SEOUL
TOKYO
SHANGHAI
NAHA
CHICHI JIMA
IWO JIMA
TAIPEI
HONG KONG
MANILA
SAIGON
SINGAPORE
GUAM
SAI
ULITHI
YAP
PALAU IS
WOLEAI
19/12Z
14/12Z
TYPHOON CARMEN
BEST TRACK TC-28
14 OCT-19 OCT 1974
MAX SFC WIND 75 KTS
MINIMUM SLP 974 MBS
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
C POSITION AT XX/0000 Z
TYPHOON
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
FIRST WARNING ISSUED
LAST WARNING ISSUED

As Bess passed south of Hong Kong, the monsoon trough in the Philippine Sea produced another circulation west of Yap. This system moved westward displaying increasing organization on satellite data. Reports received from the Liberian ship ASIAN MORALITY (west wind 45 knots, pressure 998.5 mb) passing close to the center on 15 October (0000Z) confirmed that Carmen had reached tropical storm strength 180 nm east of Samar Island.

Intensifying further, Carmen turned on a northwest course and headed for northern Luzon. Some 12 hours prior to arrival on the Luzon coast near Casiguran, aircraft reconnaissance reported a central pressure of 974 mb (lowest during the lifetime of storm) and winds of minimal typhoon force (Figure 4-22).

Casiguran reported gusts to 59 knots and a minimum pressure of 981.2 mb as the center passed just north of the station. Maximum 24 hour rainfall recorded as the storm cut across Luzon was at Baguio (8.98 inches). Casualties in the wake of Carmen amounted to 13 dead, and damage losses were estimated near $11.6 million.

Elsewhere, eastern Taiwan suffered crop damage near $1.4 million due to the heavy rains associated with typhoons Bess and Carmen. Newspaper reports indicated 11 persons killed on Taiwan.

As Carmen entered the South China Sea, weakening pressures over east central China influenced the typhoon to slow in forward speed. On the 18th, satellite intensity estimates indicated Carmen probably reached a peak strength of 75 knots about 120 nm south of Hong Kong as the storm edged slowly northwestward.

During the 18th, several ships caught in Carmen's circulation reported strong winds. An unidentified vessel experienced northerly winds of 45 knots 150 nm northwest of the typhoon's center, while the Norweigian ship JARAMA reported easterly winds of 50 knots 130 nm to the northeast (both reports 18/0000Z). Later the U. S. ship RAPHAEL SEMMES passing south of the center reported 60 knot winds at 18/1200Z and 19/0000Z.

Following passage of an upper level trough over the Yellow Sea on the 18th, a high pressure ridge began to penetrate into South China, causing a northeasterly flow of modified air from the land mass into the typhoon's circulation. Within 24 hours, Carmen's central pressure began to fill rapidly, and winds dropped to tropical storm force. Turning on a more westerly course, Carmen weakened to depression strength and later dissipated east of the Luichow peninsula early on the 20th.

The center of Carmen approached within 70 nm of Hong Kong on the 19th producing considerable rainfall and gale force winds in the Colony. Peak gusts of 70 knots were observed both at Waglan Island and the Royal Observatory. Maximum rainfall during the 3 day period (18-20 October) totaled 18.1 inches (Figure 4-23). Carmen brought much needed rain to the Colony which was suffering from a drought; however, heavy downpours flooded many low-lying areas and caused landslides and road collapses. Newspaper reports indicated extensive crop damage due to flooding caused by the rains. Two lighters went aground and four other vessels broke away from their moorings. One fatality was attributed to Carmen in the Colony.

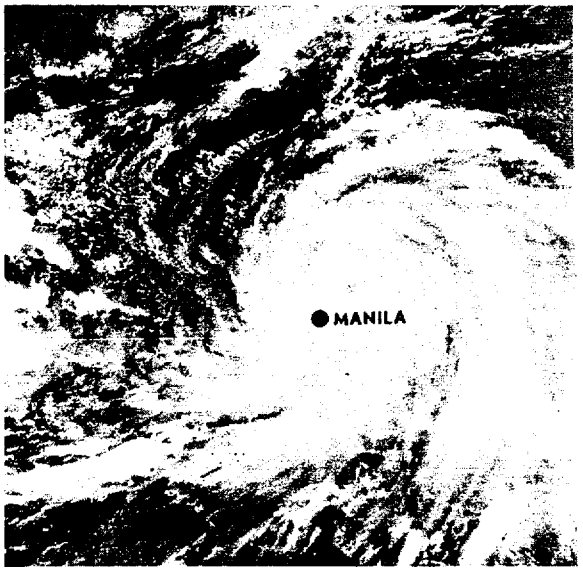

FIGURE 4-22. *Typhoon Carmen a few hours prior to landfall on Luzon near Casiguran, 16 October 1974, 0348Z. (DMSP imagery)*

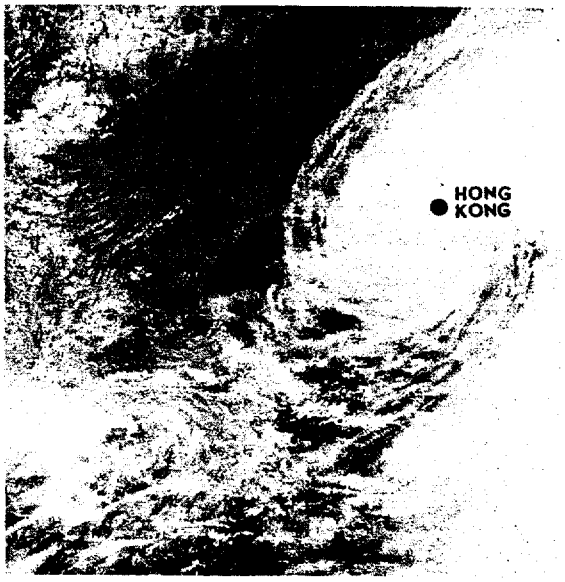

FIGURE 4-23. *Tropical Storm Carmen approaching the South China coast 90 nm southwest of Hong Kong, 19 October 1974, 0434Z. (DMSP imagery)*